

### COMPRESSOR DEFINITION

|                           |                 |
|---------------------------|-----------------|
| Designation               | EM C55CLT       |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number        | 700CA98         |

### A - APPLICATION / LIMIT WORKING CONDITIONS

|                                    |                                   |                                   |           |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type                             | Hermetic reciprocating compressor |                                   |           |
| 2 Refrigerant                      | R-600a                            |                                   |           |
| 3 Nominal voltage and frequency    | 220-240 / 50                      | [ V / Hz ]                        |           |
| 4 Application type                 | Low Back Pressure                 |                                   |           |
| 4.1 Evaporating temperature range  | -35°C to -10°C                    | (-31°F to 14°F)                   |           |
| 5 Motor type                       | RSCR                              |                                   |           |
| 6 Starting torque                  | LST - Low Starting Torque         |                                   |           |
| 7 Expansion device                 | Capillary tube                    |                                   |           |
| 8 Compressor cooling               |                                   | Operating voltage range           |           |
|                                    |                                   | 50 Hz                             | 60 Hz     |
| 8.1 LBP (32°C Ambient temperature) | Static                            | 187 to 255 V                      | -         |
| 8.2 LBP (43°C Ambient temperature) | Static                            | 187 to 255 V                      | -         |
| 8.3 HBP (32°C Ambient temperature) | -                                 | -                                 | -         |
| 8.4 HBP (43°C Ambient temperature) | -                                 | -                                 | -         |
| 9 Maximum condensing temperature   |                                   |                                   |           |
| 9.1 Operating                      | 6.9                               | [kgf/cm <sup>2</sup> ] (98 psig)  | / °C - °F |
| 9.2 Peak                           | 7.8                               | [kgf/cm <sup>2</sup> ] (111 psig) | / °C - °F |
| 10 Maximum winding temperature     | 130                               | [ °C ]                            |           |

### B - MECHANICAL DATA

|                               |                |                                  |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation      |                | [hp]                             |
| 2 Displacement                | 9.04           | [cm <sup>3</sup> ] (0.552 cu.in) |
| 2.1 Bore [mm]                 | 24.000         |                                  |
| 2.2 Stroke [mm]               | 20.000         |                                  |
| 3 Lubricant charge            | 150            | [ml] (5.07 fl.oz.)               |
| 3.1 Lubricants approved       |                |                                  |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 |                                  |
| 4 Weight (with oil charge)    | 7.45           | [kg] (16.42 lb.)                 |
| 5 Nitrogen charge             | -              | [kgf/cm <sup>2</sup> ]           |

### C - ELETRICAL DATA

|  |                                      |                                    |
|--|--------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase)   |                                    |
| 2 Starting device type                       | TSD                                  |                                    |
| 2.1 Starting device                          | TSD-220V0.6/TSD2-220V1.2/TSD2-D-220V |                                    |
| 3 Start capacitor                            | -                                    | [µF(VAC minimum)]                  |
| 4 Run capacitor                              | 4(350)                               | [µF(VAC minimum)]                  |
| 5 Motor protection                           | CP4TMC212K61A5                       |                                    |
| 6 Start winding resistance                   | 21.45                                | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 26.20                                | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 4.15                                 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz)     | 0.54                                 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz)      | 0.79                                 | [A] - Measured according to UL 984 |
| 11 Approval boards certification             | VDE                                  |                                    |

### D - PERFORMANCE - CHECK POINT DATA

|                               |          |     |                                   |                               |  |                               |           |       |
|-------------------------------|----------|-----|-----------------------------------|-------------------------------|--|-------------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |          |     | <b>CECOMAFLBP-NOFAN</b><br>Static |                               | Evaporating temperature<br>(Condensing temperature | -25°C (-13°F)<br>55°C (131°F) |           |       |
| Cooling capacity<br>+/- 5%    |          |     | Power consumption<br>+/- 5%       | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                            | EFFICIENCY RATE<br>+/- 7%     |           |       |
| [Btu/h]                       | [kcal/h] | [W] | [W]                               | [A]                           | [kg/h]   | [Btu/Wh]                      | [kcal/Wh] | [W/W] |
| 393                           | 99       | 115 | 82                                | 0.37                          | 1.50   | 4.82                          | 1.21      | 1.41  |

### E - PERFORMANCE - CURVES

|                               |                            |                                |     |                             |                               |                                       |                           |           |       |  |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|---------------------------------------|---------------------------|-----------|-------|--|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</b><br>Static |     |                             |                               | (Condensing temperature 35°C (+95°F)) |                           |           |       |  |
| Evaporating temperature       | Cooling capacity<br>+/- 5% |                                |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%               | EFFICIENCY RATE<br>+/- 7% |           |       |  |
| °C (°F)                       | [Btu/h]                    | [kcal/h]                       | [W] | [W]                         | [A]                           | [kg/h]                                | [Btu/Wh]                  | [kcal/Wh] | [W/W] |  |
| -35 (-31)                     | 301                        | 76                             | 88  | 56                          | 0.26                          | 0.96                                  | 5.36                      | 1.35      | 1.57  |  |
| -30 (-22)                     | 409                        | 103                            | 120 | 66                          | 0.30                          | 1.31                                  | 6.25                      | 1.58      | 1.83  |  |
| -25 (-13)                     | 540                        | 136                            | 158 | 75                          | 0.34                          | 1.73                                  | 7.21                      | 1.82      | 2.11  |  |
| -20 (- 4)                     | 693                        | 175                            | 203 | 85                          | 0.38                          | 2.23                                  | 8.23                      | 2.07      | 2.41  |  |
| -15 (+ 5)                     | 871                        | 220                            | 255 | 94                          | 0.42                          | 2.80                                  | 9.31                      | 2.35      | 2.73  |  |
| -10 (+14)                     | 1074                       | 271                            | 315 | 103                         | 0.46                          | 3.46                                  | 10.43                     | 2.63      | 3.06  |  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |  |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|--|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</b><br>Static |     |                             |                               | (Condensing temperature 45°C (+113°F)) |                           |           |       |  |
| Evaporating temperature       | Cooling capacity<br>+/- 5% |                                |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                | EFFICIENCY RATE<br>+/- 7% |           |       |  |
| °C (°F)                       | [Btu/h]                    | [kcal/h]                       | [W] | [W]                         | [A]                           | [kg/h]                                 | [Btu/Wh]                  | [kcal/Wh] | [W/W] |  |
| -35 (-31)                     | 249                        | 63                             | 73  | 56                          | 0.26                          | 0.86                                   | 4.44                      | 1.12      | 1.30  |  |
| -30 (-22)                     | 346                        | 87                             | 101 | 67                          | 0.31                          | 1.20                                   | 5.15                      | 1.30      | 1.51  |  |
| -25 (-13)                     | 464                        | 117                            | 136 | 78                          | 0.36                          | 1.61                                   | 5.90                      | 1.49      | 1.73  |  |
| -20 (- 4)                     | 603                        | 152                            | 177 | 90                          | 0.41                          | 2.10                                   | 6.69                      | 1.69      | 1.96  |  |
| -15 (+ 5)                     | 766                        | 193                            | 224 | 102                         | 0.46                          | 2.67                                   | 7.51                      | 1.89      | 2.20  |  |
| -10 (+14)                     | 952                        | 240                            | 279 | 114                         | 0.52                          | 3.33                                   | 8.35                      | 2.10      | 2.45  |  |

|                               |                            |                                |     |                             |                               |  |                           |           |       |  |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|--|
| TEST CONDITIONS:<br>@220V50Hz |                            | <b>CECOMAF-NOFAN</b><br>Static |     |                             |                               | (Condensing temperature 55°C (+131°F)) |                           |           |       |  |
| Evaporating temperature       | Cooling capacity<br>+/- 5% |                                |     | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%                | EFFICIENCY RATE<br>+/- 7% |           |       |  |
| °C (°F)                       | [Btu/h]                    | [kcal/h]                       | [W] | [W]                         | [A]                           | [kg/h]                                 | [Btu/Wh]                  | [kcal/Wh] | [W/W] |  |
| -35 (-31)                     | 204                        | 51                             | 60  | 57                          | 0.26                          | 0.78                                   | 3.64                      | 0.92      | 1.07  |  |
| -30 (-22)                     | 288                        | 73                             | 84  | 68                          | 0.31                          | 1.10                                   | 4.22                      | 1.06      | 1.24  |  |
| -25 (-13)                     | 391                        | 99                             | 115 | 81                          | 0.37                          | 1.49                                   | 4.82                      | 1.21      | 1.41  |  |
| -20 (- 4)                     | 515                        | 130                            | 151 | 94                          | 0.43                          | 1.97                                   | 5.43                      | 1.37      | 1.59  |  |
| -15 (+ 5)                     | 660                        | 166                            | 193 | 109                         | 0.50                          | 2.53                                   | 6.04                      | 1.52      | 1.77  |  |
| -10 (+14)                     | 828                        | 209                            | 243 | 124                         | 0.57                          | 3.18                                   | 6.65                      | 1.68      | 1.95  |  |

### E - PERFORMANCE - CURVES

| TEST CONDITIONS:<br>@220V50Hz |       | CECOMAF-NOFAN<br>Static    |          |     | (Condensing temperature 65°C (+149°F) ) |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|----------|-----|---|-------------------------------|-------------------------|---------------------------|-----------|-------|
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |          |     | Power consumption<br>+/- 5%             | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h] | [W] | [W]                                     | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -35                           | (-31) | 164                        | 41       | 48  | 56                                      | 0.26                          | 0.69                    | 2.91                      | 0.73      | 0.85  |
| -30                           | (-22) | 233                        | 59       | 68  | 68                                      | 0.31                          | 0.98                    | 3.41                      | 0.86      | 1.00  |
| -25                           | (-13) | 320                        | 81       | 94  | 82                                      | 0.37                          | 1.36                    | 3.91                      | 0.98      | 1.14  |
| -20                           | (- 4) | 427                        | 108      | 125 | 98                                      | 0.44                          | 1.81                    | 4.39                      | 1.11      | 1.29  |
| -15                           | (+ 5) | 553                        | 139      | 162 | 114                                     | 0.52                          | 2.35                    | 4.85                      | 1.22      | 1.42  |
| -10                           | (+14) | 700                        | 176      | 205 | 133                                     | 0.61                          | 2.98                    | 5.28                      | 1.33      | 1.55  |

### F - EXTERNAL CHARACTERISTICS

|                         |                              |      |                          |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate            | European Standard            |      |                          |
| 2 Tray holder           | Yes                          |      |                          |
| 3 Connectors            |                              |      |                          |
| 3.1 SUCTION             | 6.1 +0.10/+0.00              | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material          | Copper                       |      |                          |
| 3.1.2 Shape             | Slanted 42° up + 45° to Back |      |                          |
| 3.2 DISCHARGE           | 5.1 +0.10/+0.00              | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material          | Copper                       |      |                          |
| 3.2.2 Shape             | Slanted 42° up + 45° to Back |      |                          |
| 3.3 PROCESS             | 6 +0.08/-0.08                | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material          | Copper(OD)                   |      |                          |
| 3.3.2 Shape             | Slanted 43° up + 45° to Back |      |                          |
| 3.4 Oil cooler (Copper) | No                           | [mm] |                          |
| 3.5 Connector sealing   | Rubber Plugs                 |      |                          |